



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,088	07/07/2003	Thomas Forest	0607 1457	6958
7590	07/24/2008		EXAMINER	
Dreiss, Fuhlendorf, Steinle & Becker Patentanwalte Postfach 10 37 62 D-70032 Stuttgart, GERMANY			CHERY, DADY	
			ART UNIT	PAPER NUMBER
			2616	
			MAIL DATE	DELIVERY MODE
			07/24/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/613,088	FOREST ET AL.	
	Examiner	Art Unit	
	DADY CHERY	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 02 June 2008.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-27 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-22 and 26 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/02/2008 has been entered.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1- 22, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fellman et al. (US Patent 6,246,702, hereinafter Fellman) in view of Ofek (US Patent 6,735,199) , and in further view of Woods et al. (US Patent 6,748,451, hereinafter Woods).

Regarding claims 1, 21 and 26, Fellman discloses a method for transmitting data within a communication system (**Fig. 2**), the communication system comprising a communication media (**1**) and a number of nodes (**100**) connected to the communication media.

Fellman does not clearly teach the communication system having a time triggered communication mode in which the data is transmitted across the communication media within a first communication cycle comprising a number of time

slots, each time slot being assigned to one or more nodes of the communication system, the first communication cycle being triggered by time, and having an event triggered communication mode, the method comprising : operating the communication system in the event triggered communication mode, said operating including transmitting the data across the communication media within a second communication cycle comprising a number of timeslots each time slot being assigned to one or more nodes of the communication system, wherein said second communication cycle being triggered by an external or internal event.

However, Ofek teaches the communication system having a time triggered communication mode in which the data is transmitted across the communication media within a first communication cycle comprising a number of time slots, each time slot being assigned to one or more nodes of the communication system, the first communication cycle being triggered by time, and having an event triggered communication **mode (col. 11, 42 - 45, the time assignment controller triggered the communication mode for transmitting data , each communication link may use different time slot)**, the method comprising : operating the communication system in the event triggered communication mode, said operating including transmitting the data across the communication media within a second communication cycle comprising a number of timeslots each time slot being assigned to one or more nodes of the communication system (**Col. 11, lines 55 -65, a second predefined time within the respective data packet forwarded out (transmitting).**

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Ofek into the teaching of Fellman for the purpose of switching of data packets in a communication networks in a timely manner while providing low switching complexity and performance guarantee

(Col. 1, lines 14 -17)

Fellman in combination with Ofek fails to teaches wherein said second communication cycle being triggered by an external or internal event.

However, Woods teach a method (fig. 1) where a communication cycle is initiated by an external or internal event (**Col. 5, lines 3 – 7 and Col. 7, lines 49 –54**). Which is the same function as described by the instant application. Woods also teaches a local event table (**Fig. 1, 114**) and master even table (**112**) that considered as the means for receiving internal and external event and a member node (**107**) which is considered as a means for initiating a communication cycle upon receipt the event.

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to initiate the communication cycle by an event in order for each node to initiating each communication at the time defined in the schedule
(Abstract).

Regarding claims 2 and 3, Fellman fails to teach the event is external or internal. However, Woods teaches a local event table (114) that is considered as internal event and a master event table (112) that is considered an external event.

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to consider the event as internal or external for the purpose of controlling timing for applicable time dependent task (Col. 8, lines 1- 3).

Regarding claim 4, Fellman discloses *one of the nodes of the communication system is defined as a master node, which initiates said second communication cycle in conjunction with a predetermined trigger signal* (Col. 10, lines 54 –Col. 11, lines 5). Where the common time reference is considered as a predetermined trigger signal.

Regarding claim 5, Fellman discloses *the master node receives the trigger signal* (Col. 10, lines 62 –64). Where the assigning of the signal is considered as receiving the signal.

Regarding claim 6, Fellman discloses *the master node generates the trigger signal* (Col. 10, lines 64 – 66). Where the master device generate a trigger signal that uses for synchronizing other slaves devices.

Regarding claim 7, Fellman discloses *a method wherein execution of the communication cycle is suspended until the master node receives or generates the trigger signal* (Col. 12, lines 45 –Col. 13, lines 12). Where the indication of no device is allowed to transmit (col. 23, lines 6- 9) is considered as suspended until the master device receives or generates the trigger signal..

Regarding claim 9, Fellman discloses a method where during a guard phase, which is period of time, the network is quiet any packet cannot be transmitted (Col. 14, lines 25 – 27). This is the same function as described by the instant application.

Regarding claim 10, Fellman discloses *a method wherein the master node issues an event indication signal (EIS) upon receipt or generation of said trigger signal* (Col. 10, lines 57 – Col. 11, lines 5), *the other nodes of the communication system being defined as slave nodes which receive said event indication signal and which resume execution of said second communication cycle upon reception of said event indication signal* (Col. 11, lines 6 –15).

Regarding claim 11, Fellman discloses *a method wherein said communication cycle comprises a cycle gap (19) into which said nodes enter to suspend execution of the communication cycle* (fig. 9A,) the standard interpacket gap IPG is considered as the cycle gap, *wherein the master node issues said event indication signal and the slave nodes receive the event indication signal to resume execution of said second communication cycle* (Col. 11, lines 6 –14).

Regarding claims 12 and 14, Fellman discloses *the method wherein the event indication signal is used for synchronizing the slave nodes* (Col. 10, lines 64 –66).

Regarding claim 13, Fellman discloses *the method wherein said event indication signal is defined as a low/high/low sequence (Fig. 5), wherein a high/low transition is used as a synchronizing event for said slave nodes* (Col. 14, lines 1 – 24).

Regarding claim 15, Fellman discloses *the method wherein the trigger signal is generated in the master node* (Col. 10, lines 64 –66).

Regarding claim 16, Fellman discloses *the method wherein the trigger signal is applied to the master node from a unit external to the master node* (Col. 15, lines 27 –30).

Regarding claim 17, Fellman discloses *the method wherein the communication cycle comprises a static segment with time slots of a predefined size and in a predefined order* (Fig. 4, and Col. 12, lines 13- 16).

Regarding claim 18, Fellman discloses *the method wherein the communication cycle comprises a dynamic segment with time slots for transmitting a variable number of frames of variable length and variable order* (Fig. 5, and col. 14, lines 2- 14).

Regarding claim 19 and 20, Fellman discloses computer readable medium including RAM and ROM for storing the computer program to execute the method of claim 1 (**Fig. 2, and 3**). Every computer has memory (RAM and ROM).

Regarding claim 22, Fellman discloses *the node wherein the event receiving means accommodate a predefined trigger signal, wherein said means for initiating said communication cycle initiate said second communication cycle upon receipt of said trigger signal* (Col. 10, lines 57 –col. 11, lines 5) Where the master device is considered as the means.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DADY CHERY whose telephone number is (571)270-1207. The examiner can normally be reached on Monday - Thursday 8 am - 4 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ricky Ngo/
Supervisory Patent Examiner, Art
Unit 2616

/Dady Chery/
Examiner, Art Unit 2616